



Summary of Natural Hazard Statistics for 1998 in the United States



This National Weather Service (NWS) report offers a summary of fatalities, injuries and damages caused by severe weather in 1998. The NWS Office of Meteorology and the National Climatic Data Center compiled this *Summary of U.S. Natural Hazard Statistics* from *Storm Data*, a report comprising data from NWS forecast offices in the 50 states, Puerto Rico, Guam and the Virgin Islands.

Summary of 1998 Weather Events, Fatalities, Injuries, and Damage Costs

LAST UPDATED : 2/2/2000

<u>Weather Event</u>	<u>Fatalities</u>	<u>Injuries</u>	<u>Amount of Property Damage (M)</u>	<u>Amount of Crop Damage (M)</u>	<u>Total Prop/Crop Damage (M)</u>
<u>Convection</u>					
Lightning	44	283	\$ 38.0	\$ 3.1	\$ 41.1
Tornado	130	1868	1,714.2	22.0	1,736.2
Tstm Wind	41	860	1,435.7	161.6	1,597.3
Hail	1	45	1,348.4	166.0	1,514.4
<u>Extreme Temperatures</u>					
Cold	11	27	0.6	682.6	683.2
Heat	173	633	0.0	0.0	0.0
<u>Flood</u>					
Flash Flood	118	4578	909.1	140.9	1,050.0
River Flood	14 } 136	1856 } 6440	1,400.9	169.2	1,570.1
Small Stream/Urban Flood	4	6	14.8	8.0	22.8
<u>Marine</u>					
Coastal Storm	23	32	117.3	0.0	117.3
Tsunami	0	0	0.0	0.0	0.0
<u>Tropical Cyclones</u>					
Tropical Storm/Hurricane	9	77	3,546.6	581.3	4,127.9
<u>Winter</u>					
Winter Storm	64	285	525.9	1.6	527.5
Ice	4	223	0.8	0.0	0.8
Avalanche	9	15	0.1	0.0	0.1
<u>Other</u>					
Drought	0	0	40.0	2,142.0	2,182.0
Dust Storm	0	20	0.2	0.0	0.2
Dust Devil	0	0	0.0	0.0	0.0
Rain	11	24	45.3	321.1	366.4
Fog	6	152	2.4	0.0	2.4
High Wind	24	95	63.7	20.4	84.1
Waterspout	0	0	0.0	0.0	0.0
Fire Weather	0	92	398.5	83.0	481.5
Mud Slide	0	0	0.0	0.0	0.0
Volcanic Ash	0	0	0.0	0.0	0.0
Miscellaneous	1	0	0.2	5.0	5.2
TOTALS	687	11171	\$11,602.7M	\$4,507.8M	16,110.5M

Summary of All Severe Weather for 1998

In 1998, there were 687 fatalities—87 more than in 1997. The 10-year average number of weather-related fatalities (1989-1998) is 567. In 1998, *extreme heat* ranked as the #1 weather-related killer with 173 fatalities. Floods resulted in 136 deaths, followed closely by tornadoes with 130.

Weather-related injuries more than tripled in 1998 to 11,171 compared to 3,799 in 1997. Floods caused an astounding 6,440 (57.6%) injuries. Of those injuries, 6,091 occurred during a flood in south-central Texas between October 17-21, 1998. Tornadoes again ranked second with 1,868 injuries (16.7%), up from last year's 1,033. Thunderstorm winds followed with 860 injuries (8%).

In 1998, severe weather accounted for more than \$16 billion in damages. Topping the damage list were tropical storms and hurricanes with \$4.1 billion (26%). Drought was the next most devastating with property losses nearing \$2.2 billion, followed by tornadoes at \$1.7 billion. States suffering more than a billion dollars in property damage included Puerto Rico, Florida, Minnesota and Texas. Texas and California had the worst crop damage: \$1.37 and \$1.19 billion, respectively. Texas suffered the highest property and crop damage with more than \$2.4 billion. Puerto Rico had more than \$2 billion in total damages—\$1.7 billion from Hurricane Georges alone.

Of the 687 people who died because of severe weather, 449 were male (65%) and 233 were female (34%), nearly twice as many males as females. The 30-49 age group accounted for the largest number of fatalities with 199. Children and the elderly remained the safest, except for heat, for which the elderly are most susceptible.

July was the deadliest month with 121 fatalities (17%) caused by excessive heat and flash flooding. June ranked second with 90 (13%) deaths resulting from excessive heat. February came in third with 84 fatalities from flooding in the West, tornadoes in Florida and snow in Kentucky.

In 1998, Texas recorded the highest number of fatalities with 122—nearly twice as many (67) as in 1997. Excessive heat and floods caused the fatalities. Next were Florida and Alabama with 75 and 50 fatalities, respectively, mostly from tornadoes. Texas had the highest number of injuries with 6,442, mainly from flooding.

In 1998, extreme heat ranked as the #1 weather killer in the United States, outranking floods. The 30-year average (1969-1998) for flood deaths rose slightly from 140 in 1997 to 143 in 1998. The 30-year average death rate for lightning is 79; tornadoes, 69; and hurricanes, 24. Cold and heat statistics date back to 1989. The 10-year average for cold related fatalities is 38; for heat related fatalities, 144.

1998 Summary of all Natural Hazards

1998 SUMMARY OF FATALITIES FOR ALL HAZARDS BY AGE AND GENDER

	<u>FEMALE</u>	<u>MALE</u>	<u>UNKNOWN</u>	<u>TOTAL</u>	<u>PERCENT</u>
0 TO 9	16	25	2	43	6
10 TO 19	15	32	0	47	7
20 TO 29	15	49	0	64	9
30 TO 39	31	74	0	105	15
40 TO 49	19	75	0	94	14
50 TO 59	20	47	0	67	10
60 TO 69	35	31	0	66	10
70 TO 79	35	64	0	99	14
80 TO 89	35	28	0	63	9
90 TO --	8	4	0	12	2
UNKNOWN	4	20	3	27	4
TOTALS	233	449	5	687	100*
PERCENT	34	65	1	100	

(* Due to rounding total does not equal 100%)

Weather Related Fatalities 1998 by Month

